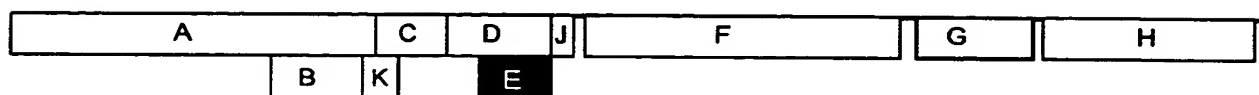


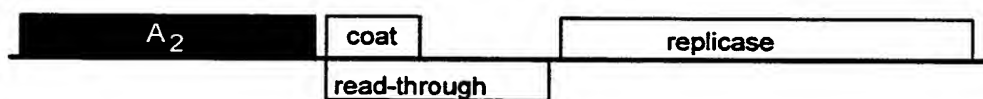
1/23

## ( $\phi$ X174 microviridae)



E = 91 aa membrane protein

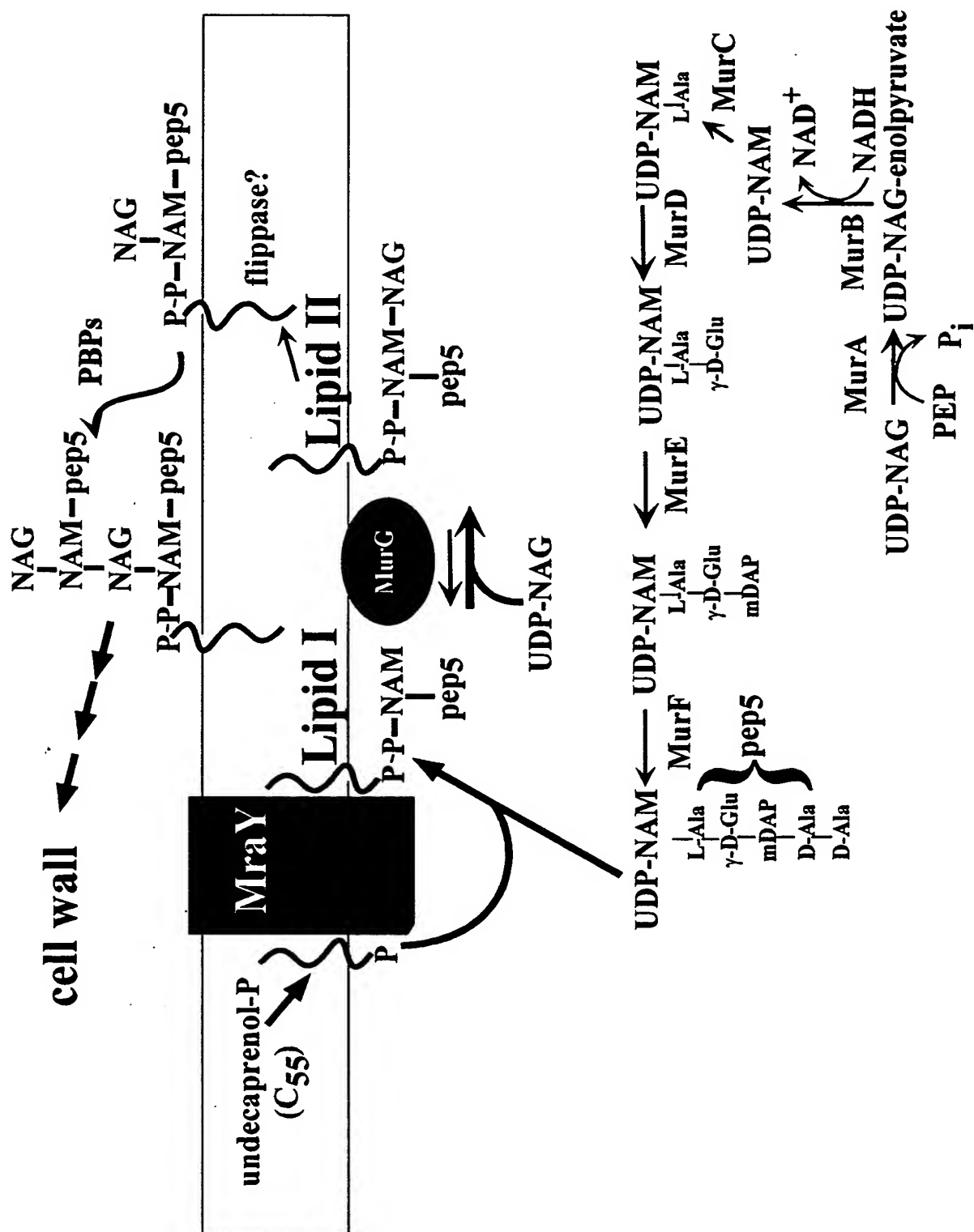
## Q $\beta$ gpIII ssRNA



A<sub>2</sub> = 460 aa virion protein  
(1 per virion)

2 kb

Figure 1



## Figure 2

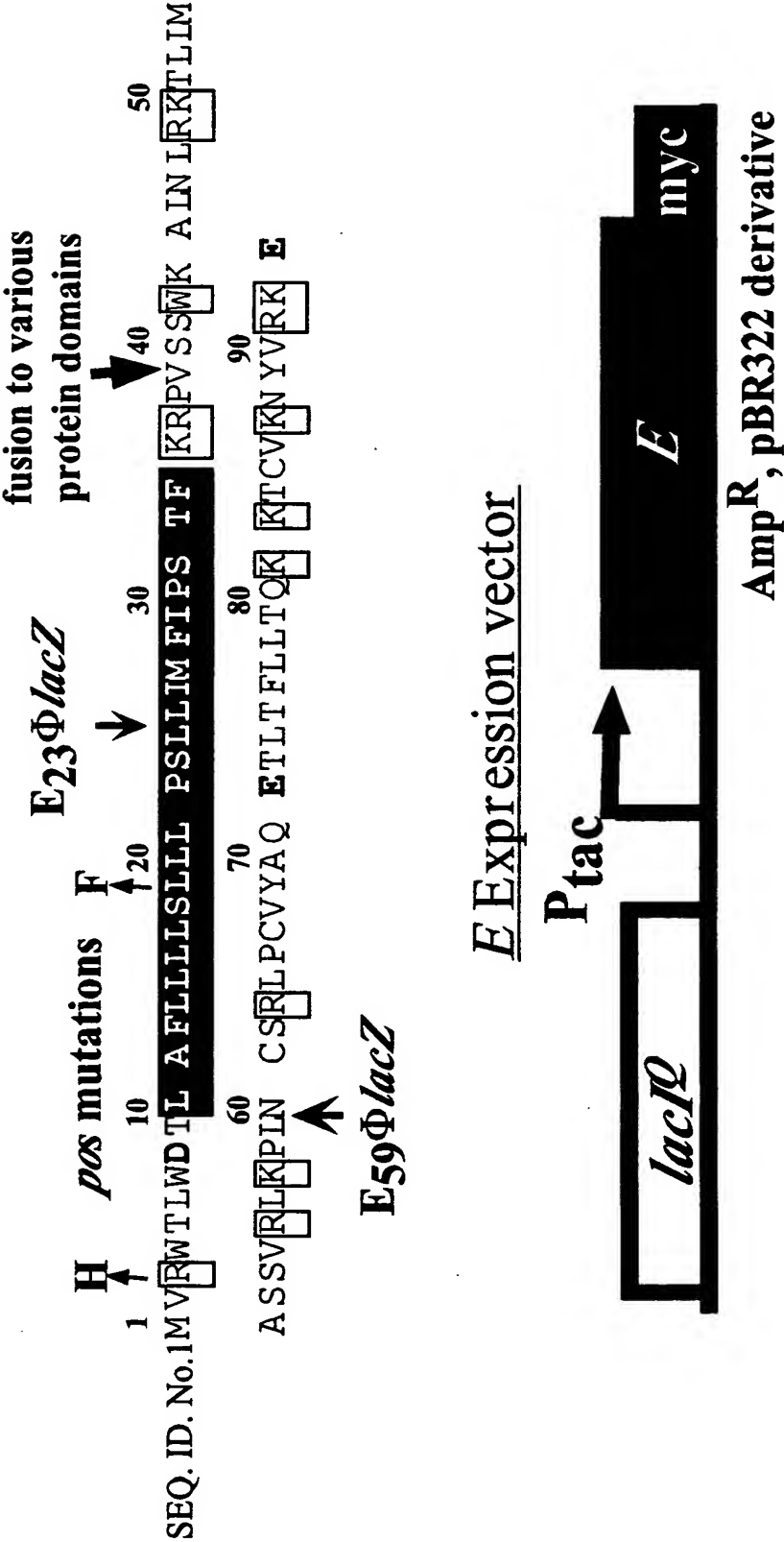


Figure 3

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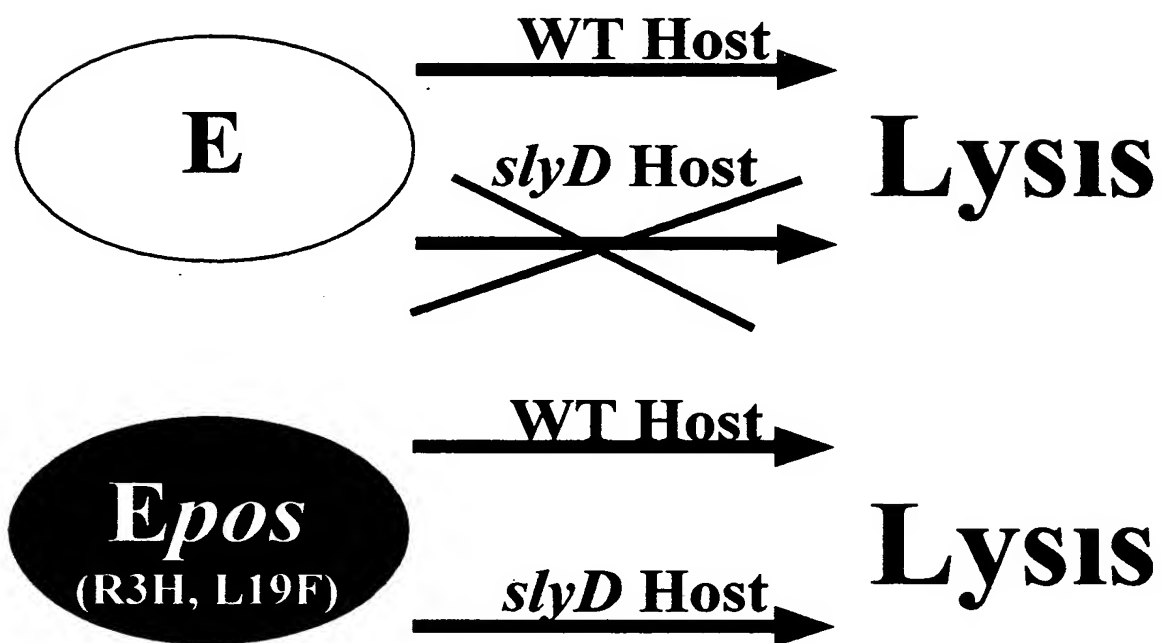


Figure 4

5/23

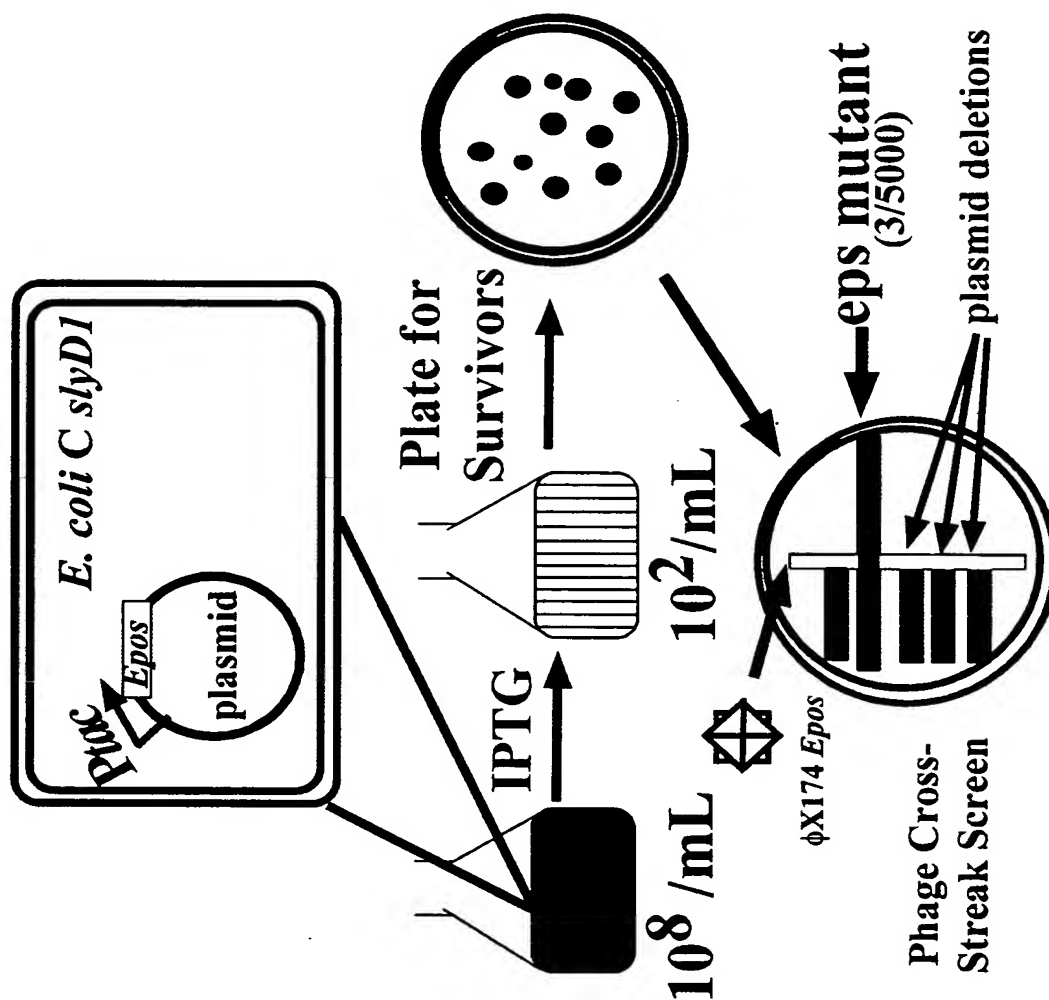


Figure 5

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**The *eps* phenotype is tightly linked to the 2 minute region  
(aka the *mra* locus) of the *E. coli* chromosome.**

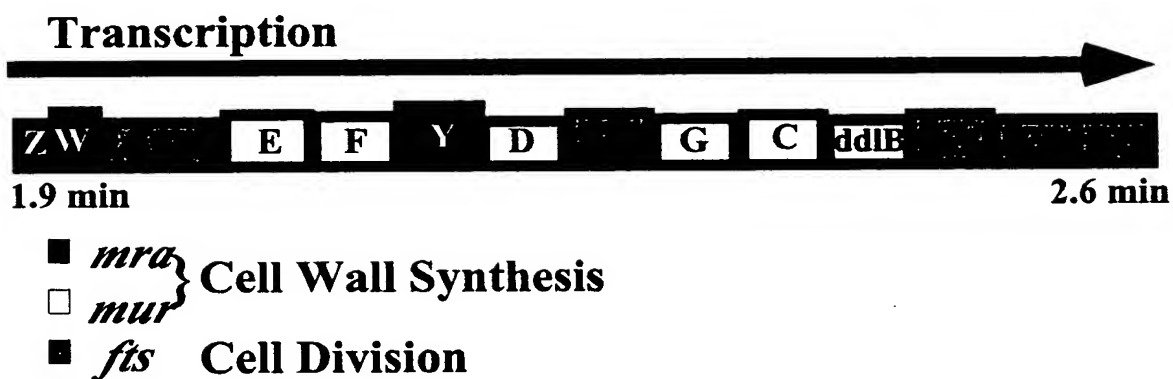


Figure 6

7/23

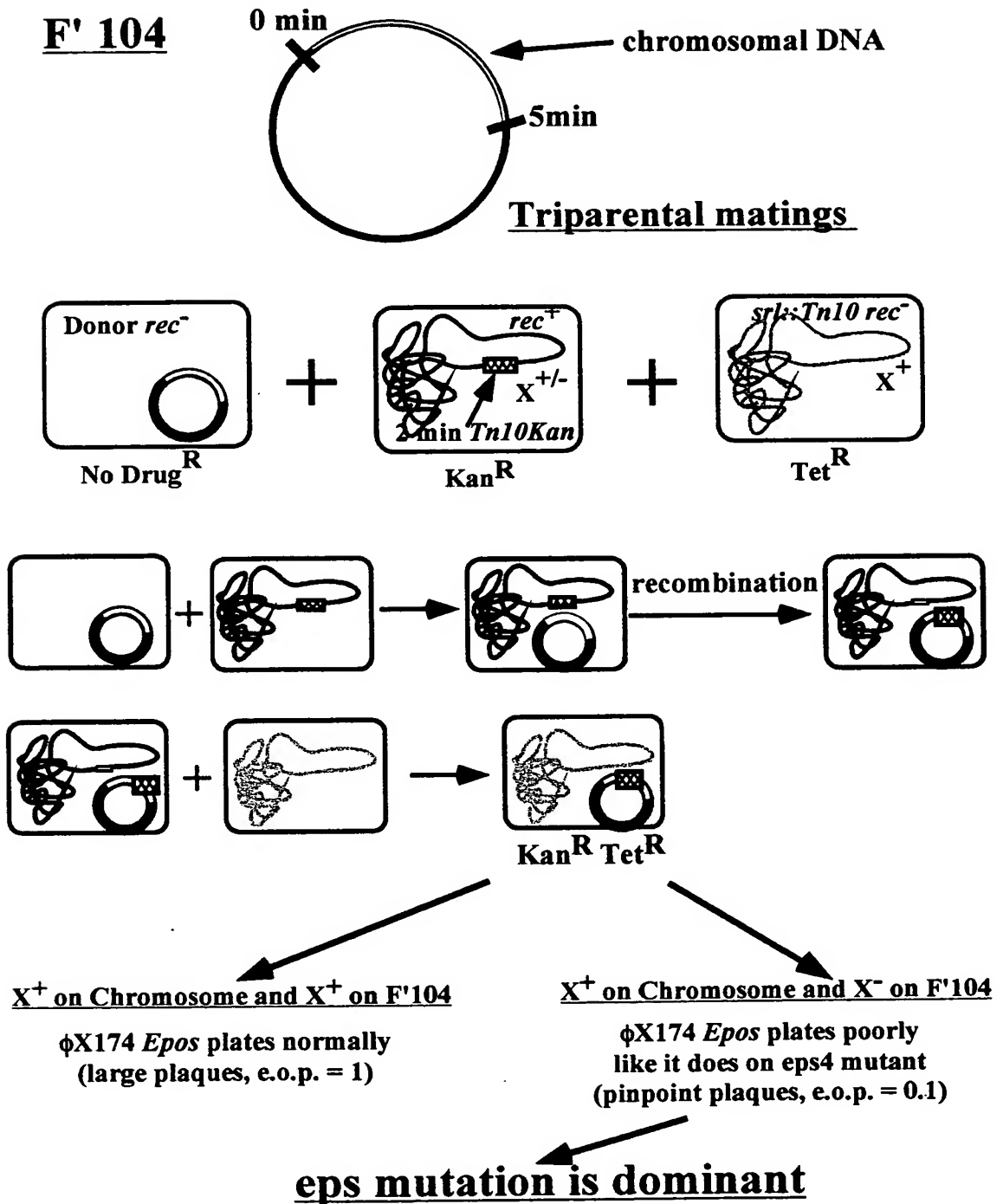


Figure 7

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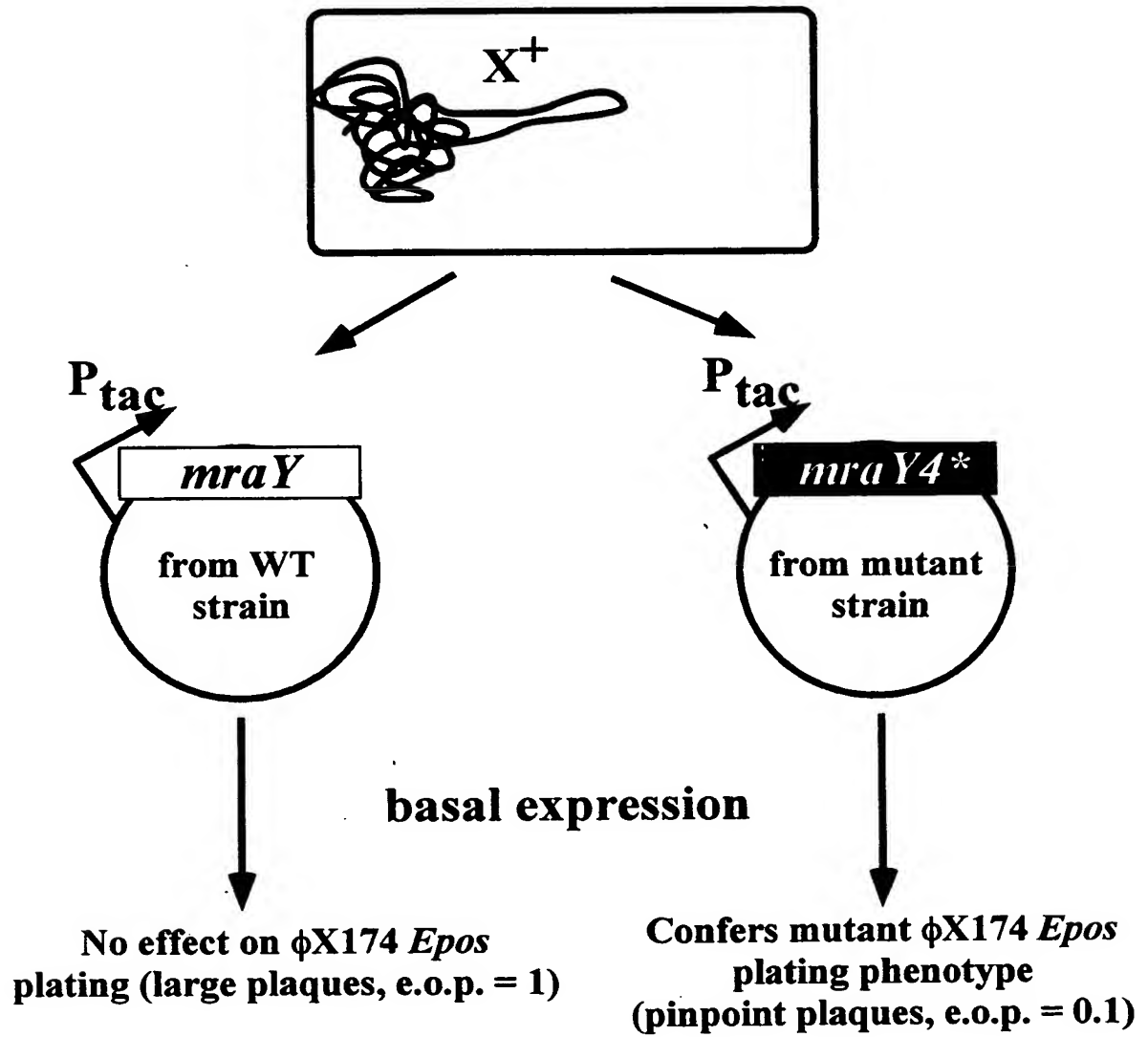


Figure 8



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## MraY

360 a.a. Membrane Protein (multiple membrane spanning domains)

Enzyme: UDP-N-Acetylmuramoyl-pentapeptide: Undecaprenyl-P

Phospho-N-Acetylmuramoyl-pentapeptide Transferase

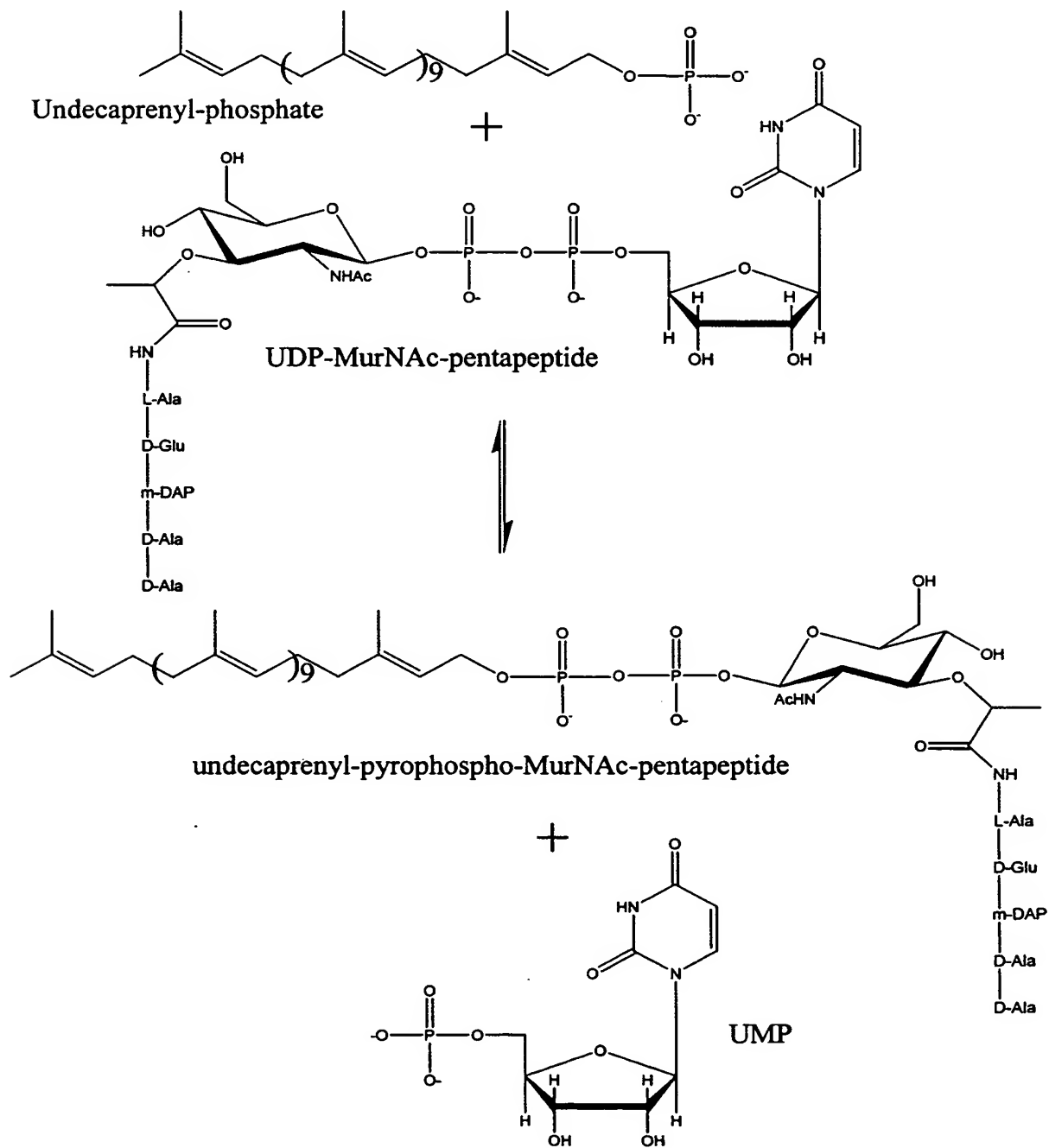


Figure 9

10/23

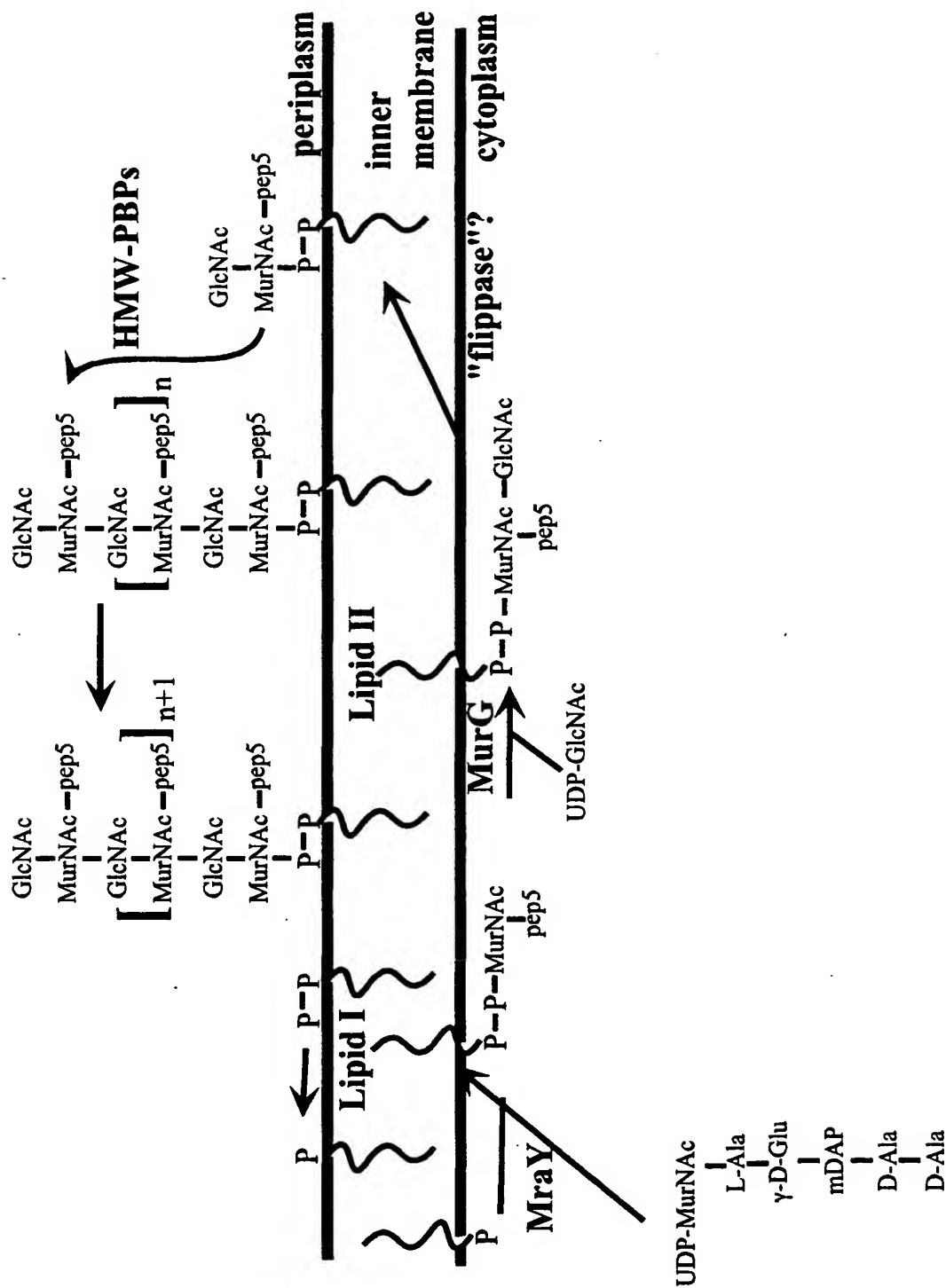


Figure 10

11/23

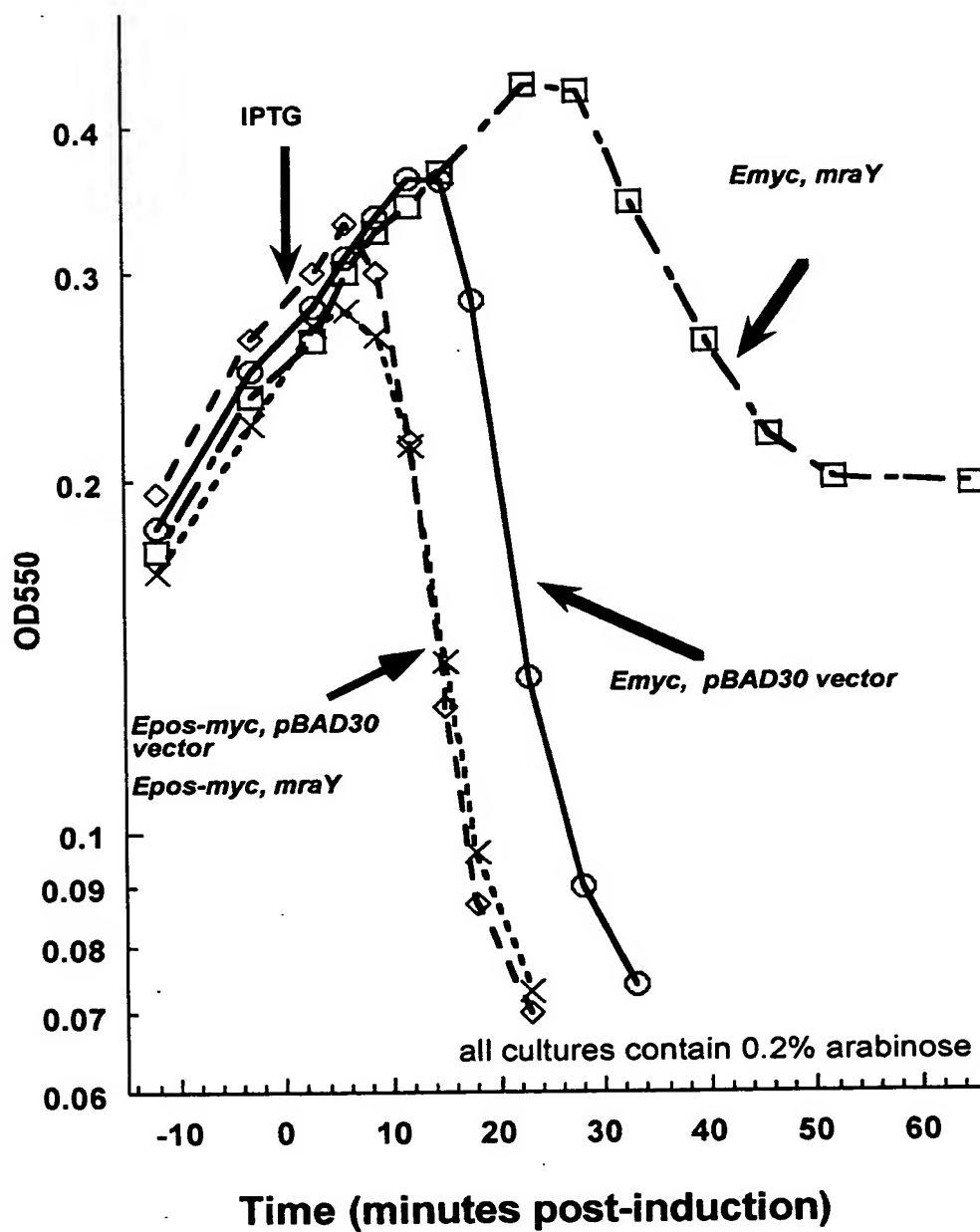


Figure 11

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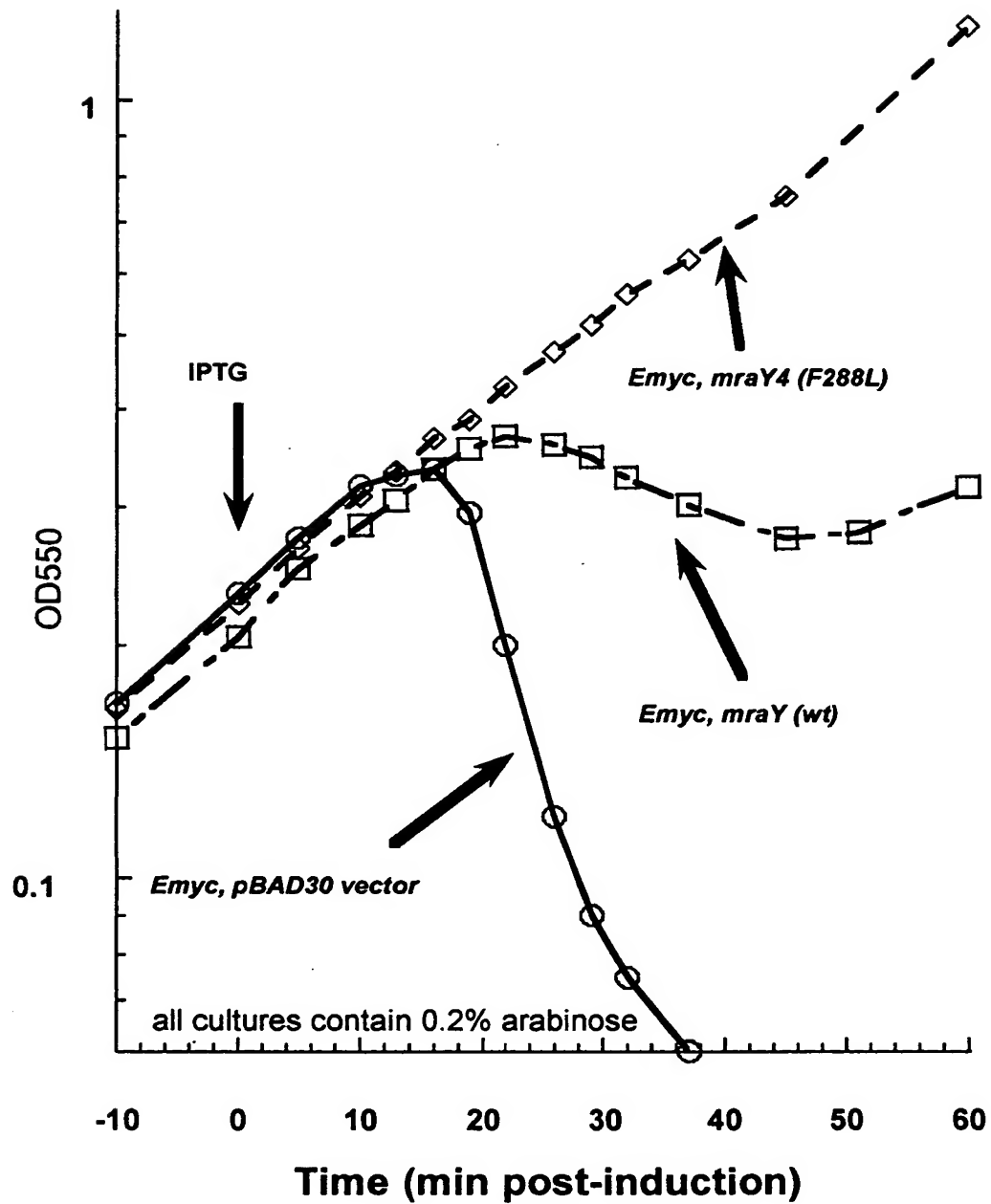


Figure 12

13/23

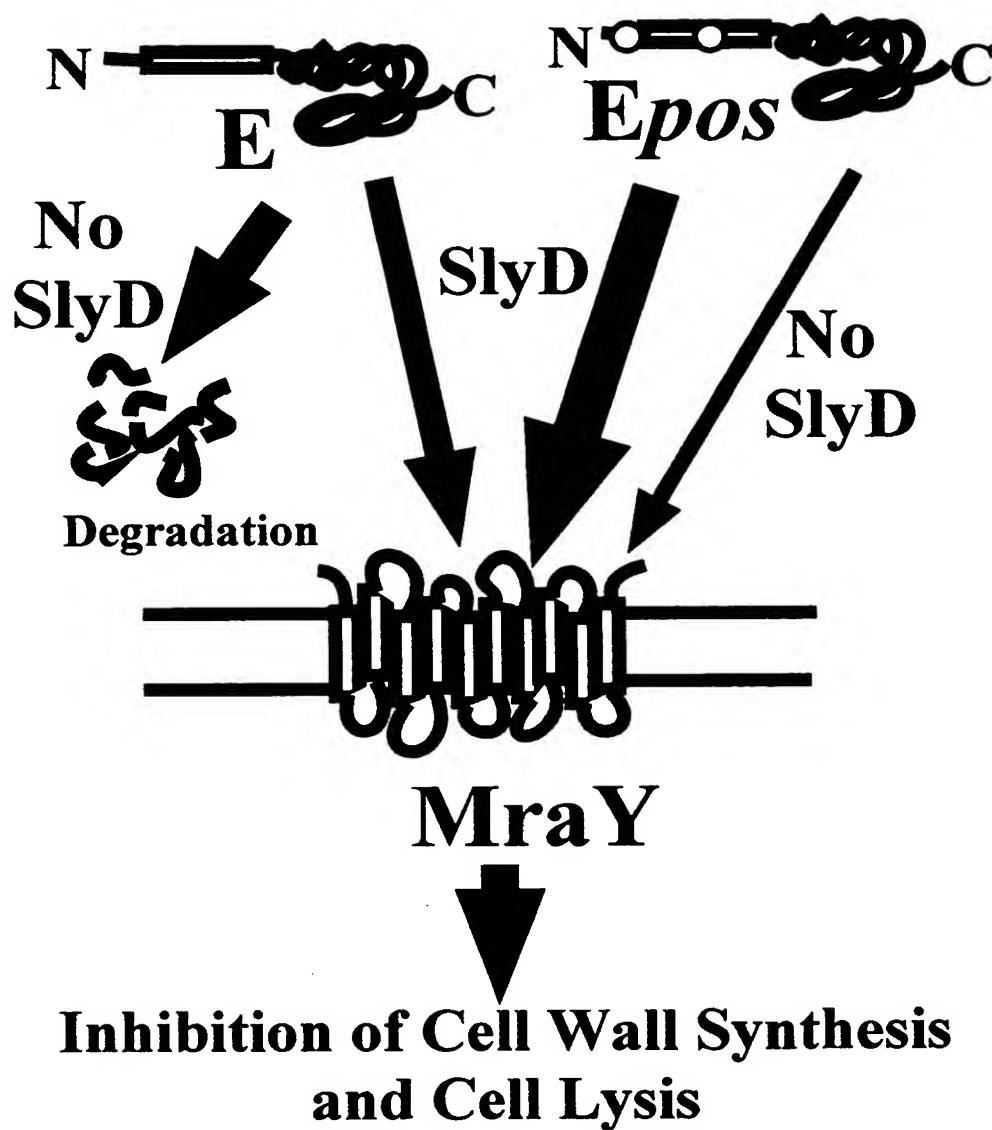


Figure 13

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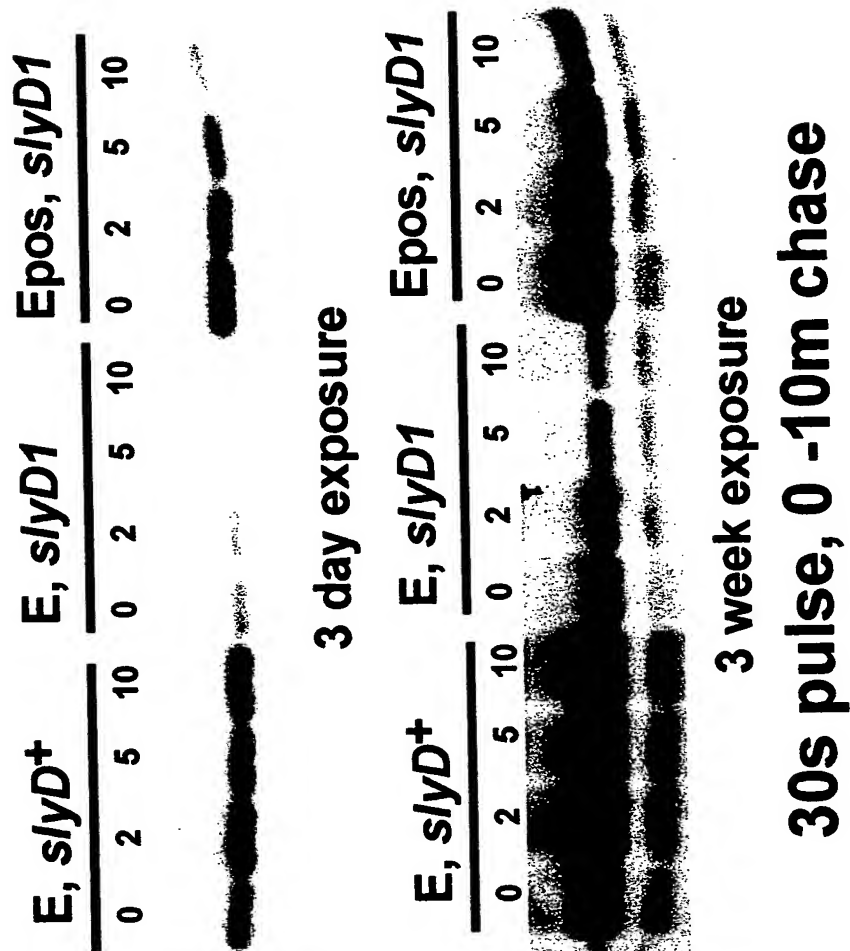


Figure 14

BEST AVAILABLE COPY

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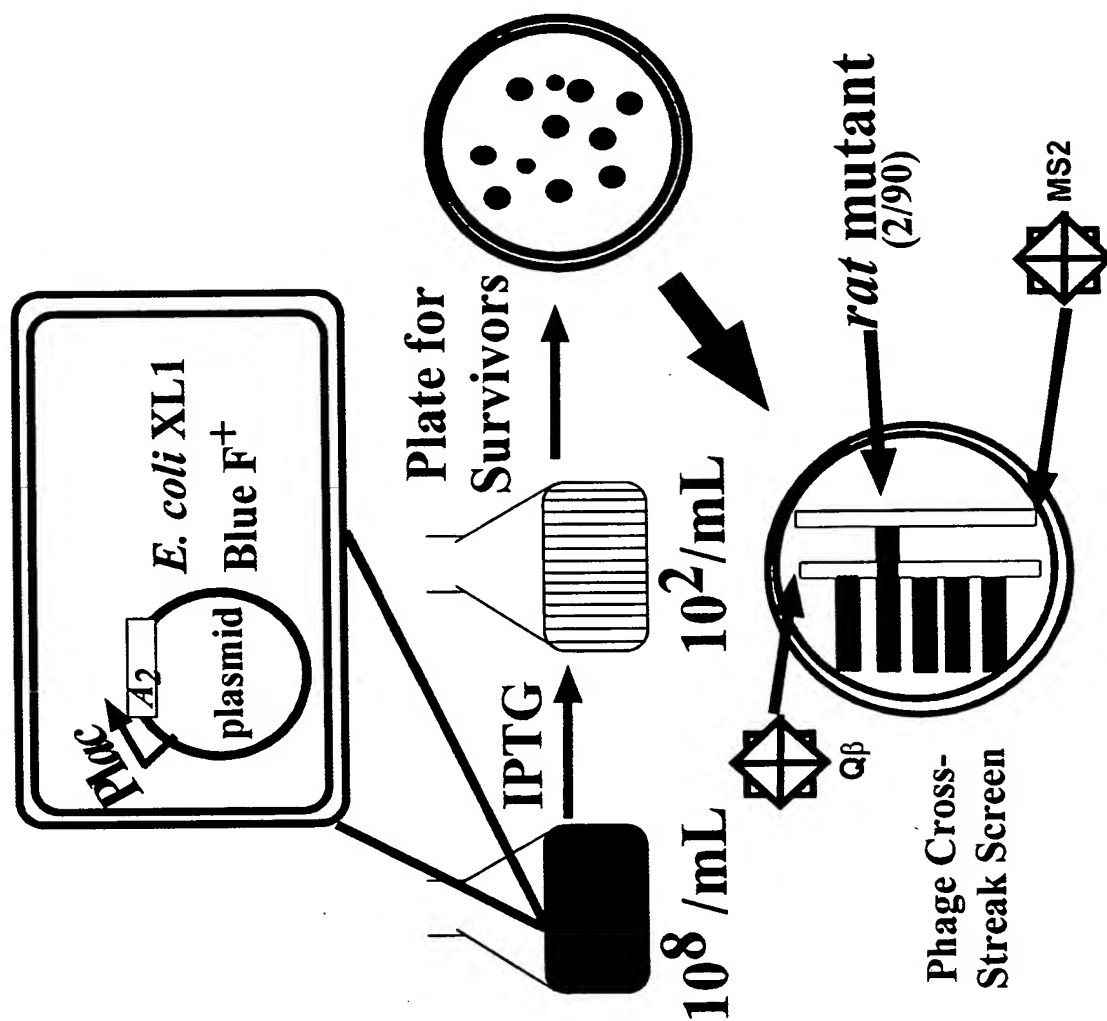


Figure 15

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```
SEQ. ID.NO.2 1 mdkfrvqgpt elqgevtisg aknaalpilf aallaeepve ignvpklkdv dtsmkllsql  
61 61 gkverngsv hidardvuvf capydlvktm rasiwalgpl varfgggqvs lpggctigar  
121 121 pvdhlhisgle qlgatiklee gyvkasvdgr lkgahivmdk vsvgatvtim caatlaegtt  
181 181 iienaarepe ivdtanflit lgakisgqgt driviegver lgggvyrvlp drietgtflv  
241 241 aaaisrgkii crnaqpdtdl avlaklrdaq adievgedwi slmhgkrpk avnvrtaaph  
301 301 afptdmqaqf tllnlvaegt gfitetvfen rfmhvpelsr mgahaeiesn tvichgvekl  
361 361 sgaqymatdl rasaslvlag ciaegttvvd riyhidrgye riedklralg aniervkge
```

Figure 16



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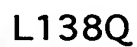


Figure 17

**BEST AVAILABLE COPY**

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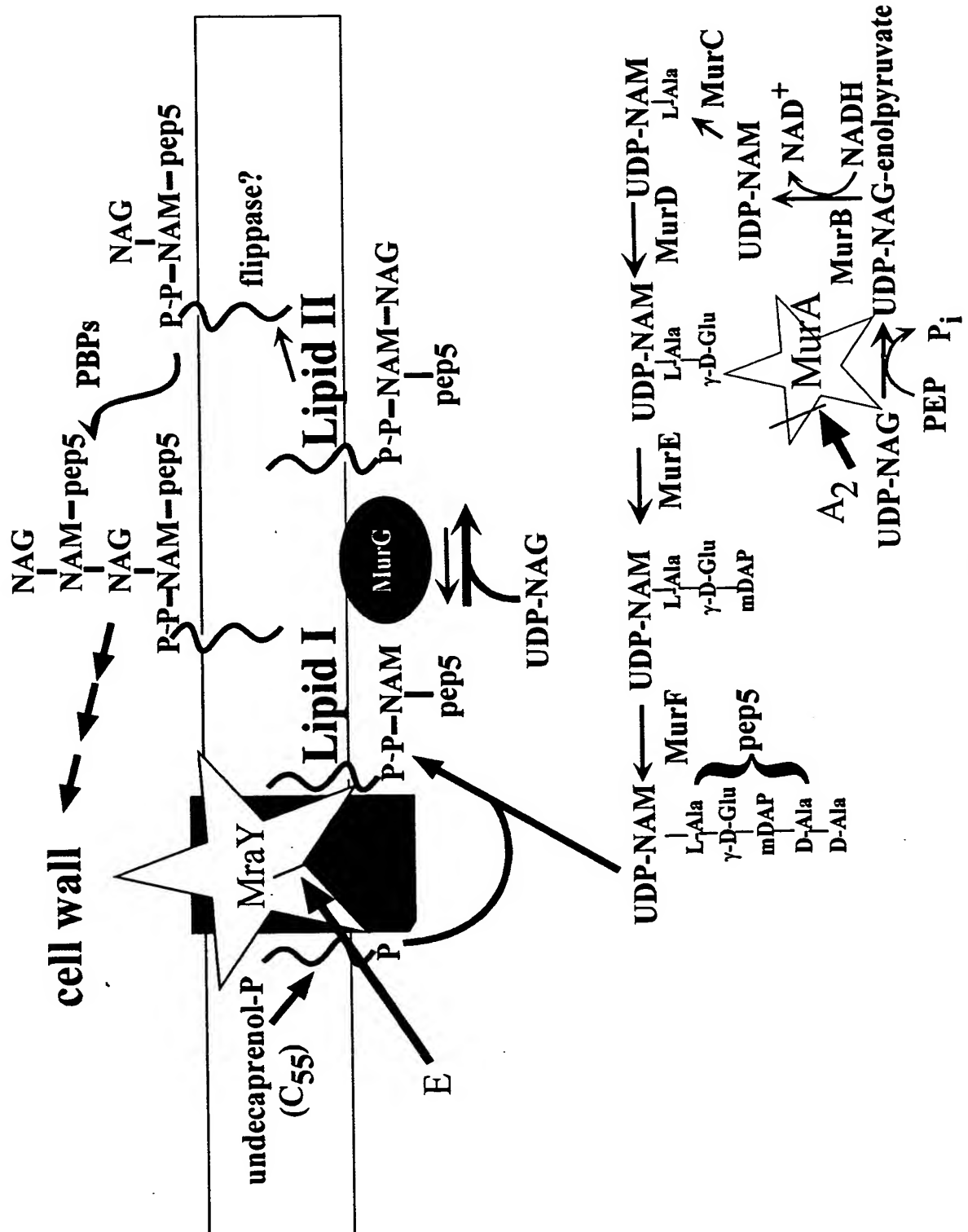


Figure 18

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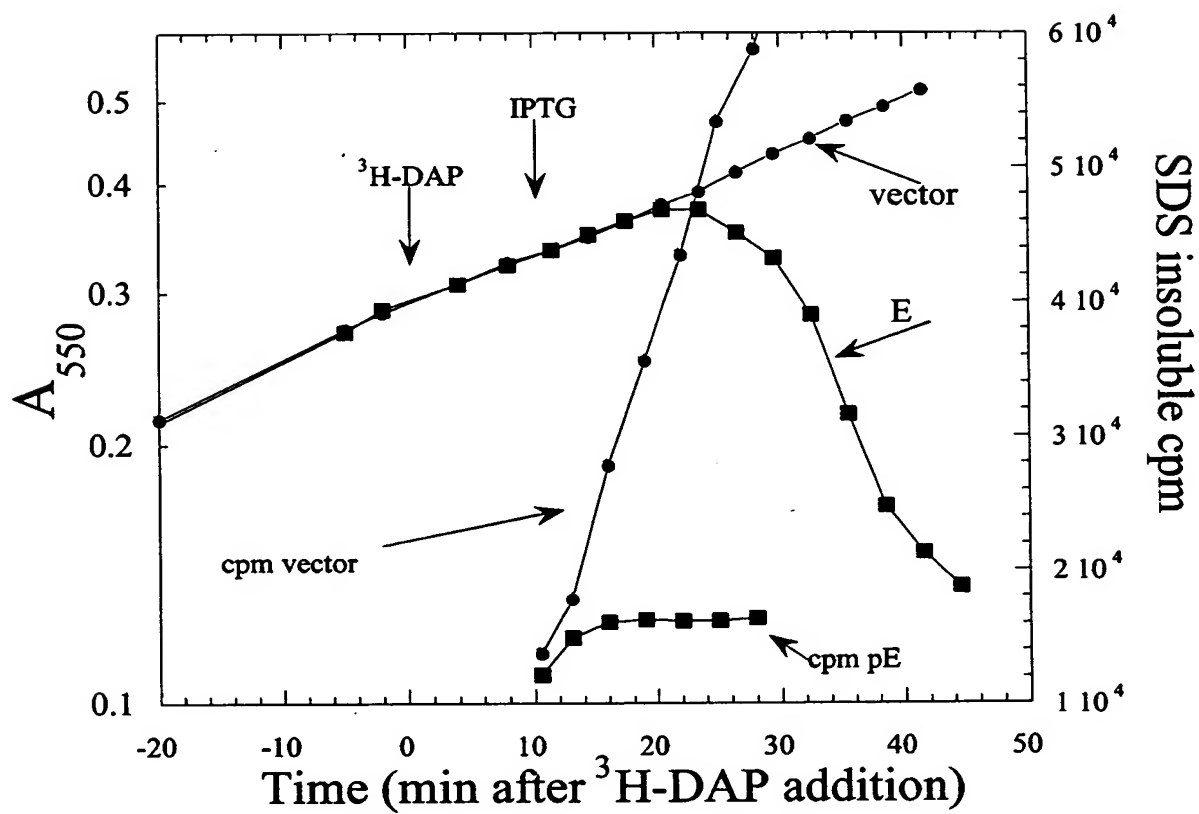


Figure 19

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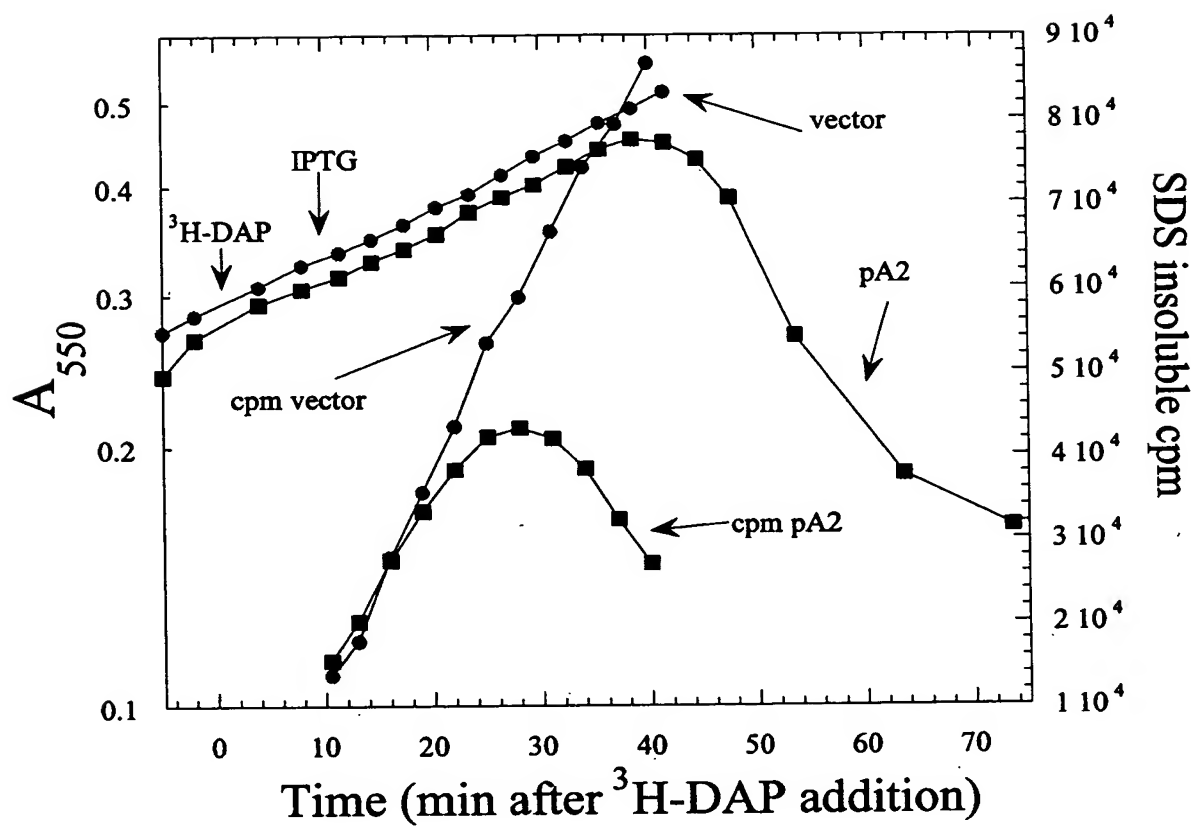


Figure 20

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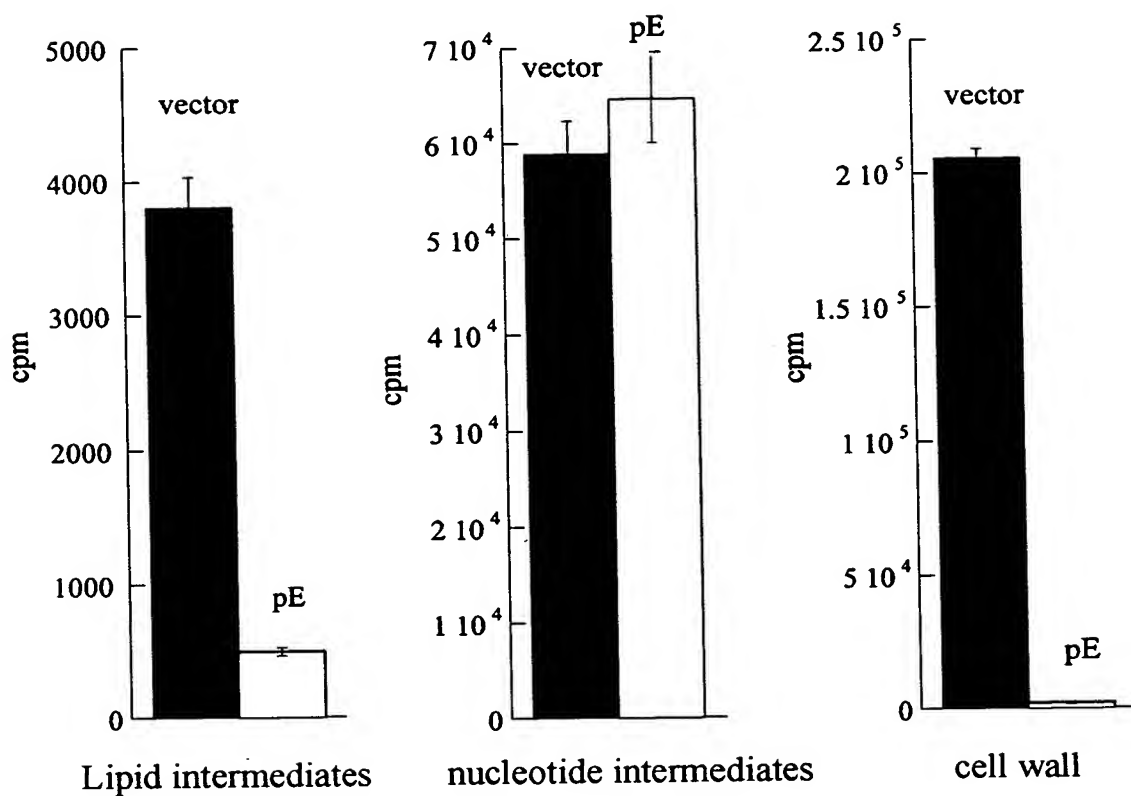


Figure 21

22/23

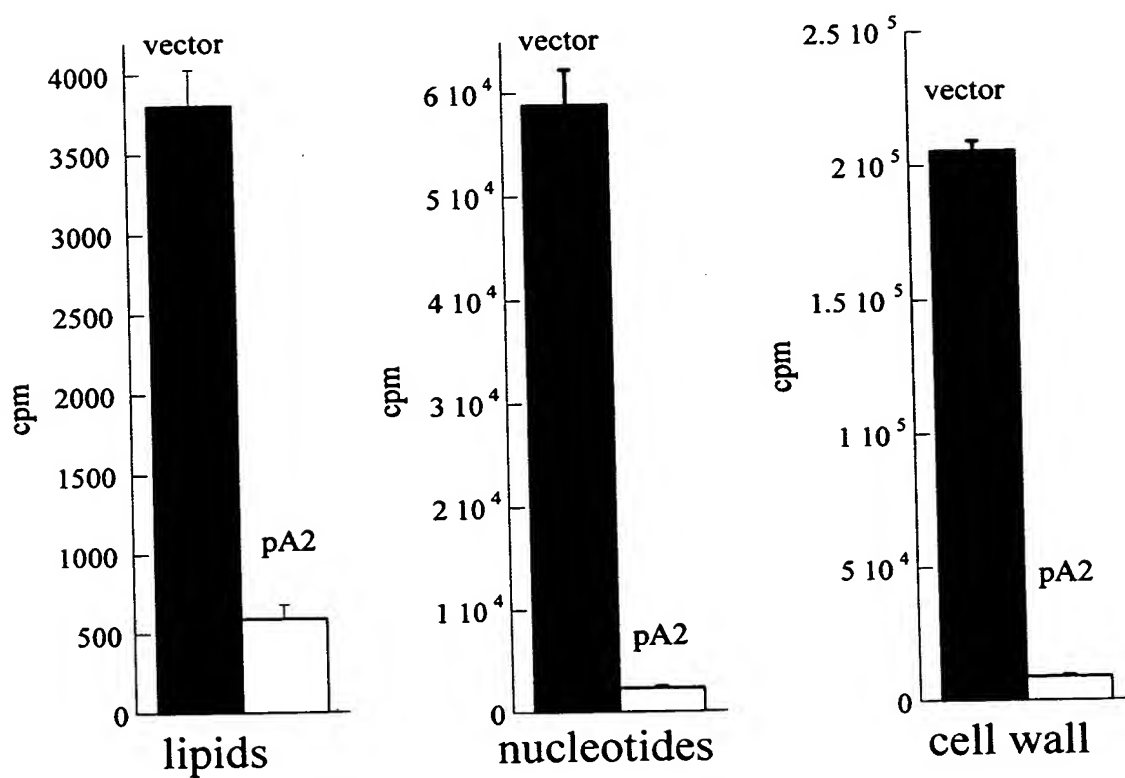


Figure 22

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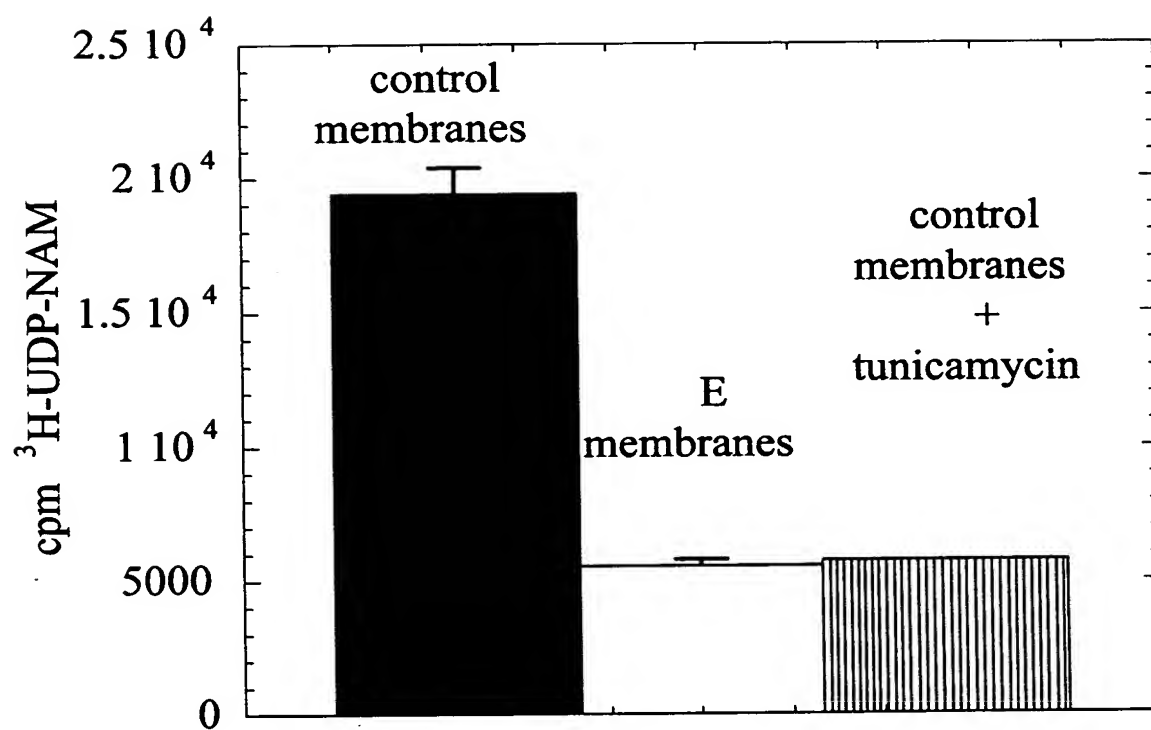


Figure 23